

F. No. 43-Econ/48

**MINISTRY OF FINANCE**

**ECONOMY COMMITTEE**

GOVERNMENT OF INDIA

*New Delhi, the 16th April, 1949.*

From

G. S. RAU, Esq.,

Secretary Economy Committee, New Delhi.

To

The Secretary to the Government of India,

Ministry of Finance, New Delhi.

Sir,

*Report of the Economy Committee on the Department of Scientific Research.*

I am directed to forward herewith the report (with two spare copies) of the Economy Committee on the Department of Scientific Research

2. The recommendations in the report have been made after detailed discussions with the Secretary, Department of Scientific Research, who has had an opportunity to see the report in draft; and are generally acceptable to him.

3. A copy of the report is being sent direct to the Department of Scientific Research.

4. The report has not been signed by Shri S. K. Patil, who has, however, approved of it. His signature will be affixed to the report on his arrival in Delhi.

Yours faithfully,

G. S. RAU.



## DEPARTMENT OF SCIENTIFIC RESEARCH

*Functions.*—Scientific and Industrial Research was the responsibility of the Ministry of Industry and Supply up to the 1st June 1948 when a separate Department of Scientific Research was established under the direct control of the Hon'ble Prime Minister, with a Director who is also its Secretary. This Department is the administrative link between the Council of Scientific and Industrial Research and Government. It advises Government on scientific questions, co-ordinates scientific activities of the various Ministries and deals with requests for grants-in-aid from research institutes and scientific associations.

2. *Staff.*—The Department has only a small staff. The Director-cum-Secretary is assisted in the secretarial work by two Under/Assistant Secretaries, one Superintendent and a small ministerial staff. The Director-cum-Secretary is also the Chief Administrative Officer of the Council of Scientific and Industrial Research. The existing arrangements need no modification.

3. *Council of Scientific and Industrial Research.*—This Council, which is a registered body, was set up in pursuance of a resolution of the Legislative Assembly passed in 1941 to constitute an Industrial Research Fund with an annual grant of Rs. 10 lakhs for five years and its functions are to promote, guide and co-ordinate scientific and industrial research in the country, to establish and develop, special research institutions and to progress utilisation of the results of research in industry. The Council is presided over by the Hon'ble the Prime Minister and contains representatives of Government Departments interested in scientific and industrial research, the Ministry of Finance and eminent scientists and industrialists. The finances of the Council are mainly derived from annual Government grants which are non-lapsable. Other sources are contributions from public men or from industries, sale of Council's publications, royalties on patents leased out etc. The Council incurs expenditure mainly on the establishment and maintenance of national research laboratories and in finding *ad hoc* research schemes.

4. *National Laboratories.*—The Council is now engaged in setting up eleven National Research Institutes (for a list of these institutes, see Annexure I). The total capital cost of these institutes is estimated at Rs. 380 lakhs of which Rs. 40 lakhs are expected to be derived as donations. Government has already made a grant of Rs. 93 lakhs and for the year 1949-50 proposes to contribute Rs. 75 lakhs. We are glad to note that in framing these estimates the Council is fully conscious of the need for economy. The estimates for four of these laboratories which at one time amounted to Rs. 341 lakhs were carefully scrutinised by a Committee of the Council and reduced to Rs. 226 lakhs; and we have no doubt that the remaining capital programmes will receive the same careful scrutiny. All these institutes are expected to be in full operation by the end of the year 1951. The annual recurring cost is estimated at Rs. 46 lakhs.

5. *Need for consolidation.*—Scientific research with a view to promote industrial advancement has been sadly neglected in this country in the past and we agree that every effort should be made to promote such research. Research, in order to be useful, requires highly trained and

skilled scientists; and these can only be built up in course of time. The establishment and maintenance of these 11 institutes will fully tax the resources of the country in men and money. We recommend that, before embarking on the construction of any more national laboratories, the eleven now on hand should be brought into full working order and a band of qualified research scholars built up.

6. *Inspection.*—The programme of research in these laboratories should be so planned as to enable them to fulfil the object underlying their establishment. On the other hand, the workers in a research laboratory must have a certain amount of freedom to pursue their own lines of thought; nor can they be expected to guarantee that every line of research they pursue will be commercially profitable. We, therefore, suggest that, while there should be no interference by Government with the day-to-day working of these laboratories, an expert Committee consisting of qualified scientists and eminent industrialists should be appointed every five years to review the work carried out in these laboratories—as a matter of fact, to review work in other similar research institutes financed by Government, whether under the Council of Scientific and Industrial Research or not—in order to assess the value of work turned out and to suggest the direction in which the work could be improved.

7. *Assistance of foreign scientific experts.*—We believe that it should be possible for Government to secure scientists and research workers of quality from the continent of Europe at comparatively reasonable salaries in the conditions now prevailing there. The desirability of securing such assistance in order to train up scientific workers in this country should be carefully explored.

8. *Co-ordination.*—While the Department of Scientific Research is said to be responsible for co-ordinating the scientific work in the different Ministries, it appears to us from our examination of the various Ministries that the work of co-ordination is not proceeding smoothly. With the constitution of the National Physical Laboratory, it should be unnecessary to develop the Alipore Test House at Calcutta to undertake investigation into research problems but the Ministry of Industry and Supply had appointed a special Committee for the organisation and expansion of the Test House. Another Department is examining plans for the establishment of a research laboratory which has already been postponed by the Department of Scientific Research until more propitious times. We recommend that all proposals to establish research institutes or research laboratories either directly by a Government Department or from funds provided by Government should, before they are sanctioned, be scrutinised by the Department of Scientific Research, so that unnecessary duplication of facilities is avoided. With regard to the Alipore Test House, we are of the view that once the National Physical Laboratory starts functioning the Alipore Test House should be confined to the testing of trade samples and issue of routine test reports. All tests involving development of new methods or fundamental quantities should be left to the National Physical Laboratory which will issue necessary certificates.

9. *Dictionary of Economic Products and Industrial Researches of India.*—The compilation of this dictionary was started in the beginning of 1942. The work is admittedly complicated and requires careful study and research. When the work was started it was contemplated that it will be completed within a period of 3 years. Nearly 7 years have elapsed and so far only one volume has been published and another volume

is said to be in the press. It is evident that the work of preparing the dictionary has not been organised properly and pushed on with sufficient vigour. One difficulty seems to have been frequent change of personnel employed in the work and consequent inefficiency and dilatoriness. We recommend that a determined effort should be made to complete the work of compiling the dictionary by the end of 1950, when this organisation should be wound up.

10. *Summary of recommendations :*

(a) For the time being Government should concentrate on the completion of the 11 National Research Institutes mentioned in Annexure I. (Para. 5).

(b) The work done by the Research Laboratories should be reviewed periodically every five years by special *ad hoc* committees consisting of eminent scientists and industrialists. (Para. 6).

(c) All proposals for the establishment of research institutes or research laboratories either directly by a Government Department or by funds provided by Government should, before they are sanctioned, be scrutinised by the Department of Scientific Research. (Para. 8).

(d) Once the National Physical Laboratory is fully established the Alipore Test House should confine its activities to the testing of trade samples and issue of routine test reports only. All tests involving development of new methods or fundamental quantities should be left to the National Physical Laboratory which will issue necessary certificates in this connection. (Para. 8).

(e) The work of compiling the Dictionary of Economic Products and Industrial Resources of India should be pushed on vigorously and completed by the end of 1950. (Para. 9).

KASTURBHAI LALBHAI, *Chairman.*

B. DAS, S. K. PATIL, JAIPAL SINGH, ISHWAR DAYAL.	}	<i>Members.</i>
---	---	-----------------

P. V. R. RAO.

*Officer on Special Duty.*

G. S. RAU,

*Secretary.*

*New Delhi, dated the 16th April, 1949.*

ANNEXURE I. (Paragraph 4)

1. National Physical Laboratory.
2. National Chemical Laboratory.
3. National Metallurgical Laboratory.
4. Fuel Research Institute.
5. Central Glass and Ceramic Research Institute.
6. Central Road Research Institute.
7. Central Food Technological Research Institute.
8. Central Drug Research Institute.
9. Central Electro-chemical Research Institute.
10. Central Leather Research Institute.
11. Building Research Institute.